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10/549,423	09/15/2005	Hidekazu Suzuki	MAT-8749US	9468

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EXAMINER	
MCNALLY, MICHAEL S	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/549,423	SUZUKI, HIDEKAZU	
	Examiner	Art Unit	
	Michael S. McNally	2436	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 August 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,4-6,9,12-14 and 17-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,4-6,9,12-14 and 17-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Detailed Action

Status of Claims:

1. Claims 1, 4-6, 9, 12-14 and 17-20 are pending in this Office Action.

2. Claims 1, 9, 17 and 18 are amended.

3. Claim 20 is new.

4. The 35 U.S.C. 112 second paragraph rejections as to claims 9, 12-14 and 18 are withdrawn based on applicant's amendment.

5. The objections as to claims 9 and 12-14 are withdrawn based on applicant's amendment.

Response to Arguments

6. Applicant's arguments filed in the amendment filed 13 August 2010, have been fully considered but are moot in view of new grounds of rejection. The reasons set forth below.

Applicant's invention as claimed:

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. Claims 1, 5, 9 and 11-13 and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over European Patent Application Publication No. EP0930556 by *Komuro et al.* in view of U.S. Patent No. 7,225,164 to *Candelore et al.* and in view of U.S. Patent Application Publication No. 2002/0004901 by *Yip et al.*

As to **claim 1**, *Komuro* discloses a revocation information transmission method used in a system including a plurality of contents transmitting devices for transmitting contents, and a plurality of contents receiving devices for receiving contents on a network (Komura: Fig 11, Page 8; Sec 71 and Page 11-12, Sec 87-94), the method comprising the steps of:

executing mutual authentication between the plurality of contents transmitting devices and the plurality of contents receiving devices, respectively, each of the contents transmitting devices reading authentication information of a respective one of the contents receiving devices (Komura: Fig 11, Page 8; sec 71 and Page 11-12, Sec 87-94);

individually uploading revocation information including key information of mutual authentication failure from each of the contents transmitting devices or each of the contents receiving devices in case of mutual authentication failure to a revocation integrator (Komura: Fig 11, Page 8; sec 71 and Page 11-12, Sec 87-94 and Page 13, Sec 110);

integrating, with the revocation integrator, the revocation information from each of the contents transmitting device with the revocation information from each of the contents transmitting devices, as an integrated revocation list representing a common list of revocations for the contents receiving devices and the contents transmitting devices on the network (Komura: Fig 11, Page 8; sec 71 and Page 11-12, Sec 87-94 and Page 13, Sec 110; broadcasting reception apparatus acquires list of device ids of illegal apparatuses from the connected device_ID table of individual devices and distributes the list to other connected devices); and

transmitting the stream to the contents transmitting devices on the network (*Komuro*: Fig 11; Page 11, Sec 88-90).

Komura does not expressly disclose

a revocation integrator that is separate from the plurality of contents transmitting devices and the plurality of contents receiving devices;

packetizing the integrated revocation list and multiplexing the packetized revocation list into a stream or

wherein the stream is an MPRG transport stream, and the integrated revocation list is transmitted by using a data structure of a section of the MPEG transport stream.

Candelore discloses packetizing the integrated revocation information and multiplexing the packetized revocation information into a stream (*Candelore*: Col 6 , Line 42- Col 7, Line10; CRL transported in an MPEG PSI data structure) and

wherein the stream is an MPRG transport stream, and the integrated revocation list is transmitted by using a data structure of a section of the MPEG transport stream (*Candelore*: Col 6 , Line 42- Col 7, Line10; CRL transported in an MPEG PSI data structure).

Yip discloses a revocation integrator that is separate from the plurality of contents transmitting devices and the plurality of contents receiving devices (*Yip* – Fig 3; Page 4, Sec 48- 54; Combined Registration Authority acts as a revocation integrator separate from the transmitting and receiving devices).

Komuro, *Candelore* and *Yip* are analogous art because they are from the common area of data transmission and protection.

At the time of invention, it would have been obvious to a person of ordinary skill in the art to transport revocation information on an MPEG transport stream. The rationale would have been to allow the system to work with an MPEG decoder (*Candelore*: Col 3, Lines 21-33). Furthermore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to separate revocation functions from receiving/transmitting. The rationale would have been to be able to manage multiple certificating authorities from a centralized location (Yip: Page 1, Sec 15 – Page 2, Sec 20)

As to **claim 5**, the modified *Komura/Candelore/Yip* reference further discloses wherein the stream is an MPEG transport stream, and the integrated revocation list is transmitted by using a payload of a transport packet of the MPEG transport stream (*Candelore*: Col 6 , Line 42- Col 7, Line10; CRL transported in an MPEG PSI data structure).

As to **claim 9**, the modified *Komura/Candelore/Yip* reference discloses a revocation information transmitting apparatus comprising:

a plurality of contents transmitting devices for transmitting contents (*Komura*: Fig 11, Page 8; sec 71 and Page 11-12, Sec 87-94);

a plurality of contents receiving devices for receiving contents, which are respectively connected to the plurality of contents transmitting devices; (*Komura*: Fig 11, Page 8; sec 71 and Page 11-12, Sec 87-94);

a first digital interface for outputting a compressed/expanded digital signal from the contents transmitting device to the contents receiving device (*Komuro*: Fig 11; Page 8, Sec 63, 71 and Page 11-12, Sec 87-94);

a second digital interface for transmitting and receiving authentication information of the contents receiving device between the contents transmitting device and the contents receiving device (*Komuro*: Fig 11; Page 8, Sec 63, 71 and Page 11-12, Sec 87-94);

a network for receiving revocation information from the plurality of contents transmitting devices or the plurality of contents receiving devices in case of mutual

authentication failure between the contents transmitting devices and contents receiving devices (*Komuro*: Fig 11; Page 8, Sec 63, 71 and Page 11-12, Sec 87-94);

an integrator that is separate from the plurality of contents transmitting devices and the plurality of contents receiving devices (*Yip* – Fig 3; Page 4, Sec 48- 54; Combined Registration Authority acts as a revocation integrator separate from the transmitting and receiving devices) that integrates the revocation information as an integrated revocation list from the contents transmitting devices or the contents receiving devices, which is connected to the network, the integrated revocation list representing a common list of revocations for the contents receiving devices and the contents transmitting devices on the network (*Komuro*: Fig 11; Page 8, Sec 63, 71 and Page 11-12, Sec 87-94 and Page 13, Sec 110);

a multiplexer that multiplexes the integrated revocation list integrated by the integrator and multiplexes it into a stream (*Candelore*: Col 6 , Line 42- Col 7, Line10); and

a transmitter that transmits the stream (*Komuro*: Fig 11; Page 8, Sec 63, 71 and Page 11-12, Sec 87-94),

wherein the stream is an MPEG transport stream, and the integrated revocation list is transmitted by using a data structure of the MPEG transport stream (*Candelore*: Col 6 , Line 42- Col 7, and Line10).

As to **claim 13**, the modified *Komura/Candelore/Yip* reference further discloses wherein the stream is an MPEG transport stream, and the integrated revocation information is transmitted by using a payload of a transport packet of the MPEG

transport stream (*Candelore*: Col 6 , Line 42- Col 7, Line10; CRL transported in an MPEG PSI data structure).

As to **claim 17**, the modified *Komura/Candelore/Yip* reference discloses a revocation information transmission method comprising the steps of:

executing mutual authentication between a contents transmitting equipment and a contents receiving equipment (*Komuro*: Fig 11; Page 11, Sec 88-90), executed by the contents transmitting equipment which reads authentication information of the contents receiving equipment through a first digital interface (*Komuro*: Fig 11; Page 11, Sec 88-90); and

outputting revocation information including key information of mutual authentication failure from the contents transmitting equipment or the contents receiving equipment in case of mutual authentication failure (*Komuro*: Fig 11; Page 11, Sec 88-90),

wherein the revocation information transmission method is used in a system comprising a contents transmitting equipment for transmitting contents, a contents receiving equipment for receiving contents, a second digital interface for outputting compressed/expanded digital signal from the contents transmitting equipment to the contents receiving equipment, and the first digital interface connecting means for transmitting and receiving data between and connecting the contents transmitting equipment to the contents receiving equipment (*Komuro*: Fig 11; Page 11-12, Sec 87-94) and a revocation integrator that is separate from the contents transmitting equipment and the contents receiving equipment (*Yip* – Fig 3; Page 4, Sec 48- 54;

Combined Registration Authority acts as a revocation integrator separate from the transmitting and receiving devices) integrating the revocation information, as an integrated revocation list from the contents receiving devices, which is connected to the network, the integrated revocation list representing a common list of revocations for the contents receiving devices and the contents transmitting devices on the network (*Komuro*: Page 13, Sec 110; broadcasting reception apparatus acquires list of device ids of illegal apparatuses from the connected device_ID table of individual devices and distributes the list to other connected devices),

wherein the integrated revocation list is transmitted from the revocation integrator to the contents transmitting devices using a data structure of an MPEG transport stream (*Candelore*: Col 6 , Line 42- Col 7, Line10; CRL transported in an MPEG PSI data structure).

As to **claim 18**, the modified *Komura/Candelore/Yip* reference discloses a revocation information managing apparatus comprising:

a plurality of contents transmitting equipments, connected to a network, for transmitting contents (*Komuro*: Fig 11; Page 8, Sec 71 and Page 11-12, Sec 87-94);

a plurality of contents receiving equipments, connected to a network, for receiving contents, which are respectively connected to the plurality of contents transmitting equipments (*Komuro*: Fig 11; Page 8, Sec 71 and Page 11-12, Sec 87-94);

a first digital interface for outputting compressed/expanded digital signal from the contents transmitting equipment to the contents receiving equipment (*Komuro*: Fig 11; Page 8, Sec 63 and Page 11-12, Sec 87-94);

a second digital interface for transmitting and receiving authentication information of the contents receiving apparatus between the contents transmitting equipment and the contents receiving equipment (*Komuro*: Fig 11; Page 11-12, Sec 87-94);

an output for outputting revocation information including key information of mutual authentication failure from the contents transmitting equipment or the contents receiving equipment in case of failure in a mutual authentication between the content transmitting equipment e and the contents receiving equipment (*Komuro*: Fig 11; Page 11-12, Sec 87-94); and

a receiver for receiving an integrated revocation list from a revocation integrator that is separate from the plurality of contents transmitting equipment and the plurality of plurality of contents receiving equipment (*Yip* – Fig 3; Page 4, Sec 48- 54; Combined Registration Authority acts as a revocation integrator separate from the transmitting and receiving devices), the integrated revocation list representing a common list of revocations for the contents receiving equipment and the contents transmitting equipment on the network (*Komuro*: Page 13, Sec 110; broadcasting reception apparatus acquires list of device ids of illegal apparatuses from the connected device_ID table of individual devices and distributes the list to other connected devices),

wherein the integrated revocation list is transmitted from the revocation integrator to the receiving means using a data structure of a section of an MPEG transport stream (*Candelore*: Col 6 , Line 42- Col 7, Line10; CRL transported in an MPEG PSI data structure).

As to **claim 19**, the modified *Komura/Candelore/Yip* reference further discloses wherein:

one of the contents transmitting devices, as a first contents transmitting device includes a first digital interface for outputting a compressed/expanded digital signal to a respective one of the contents receiving device, as a first contents receiving device and a second digital interface for executing the mutual authentication between the first contents transmitting device and the first contents receiving device (*Komuro*: Fig 11; Page 11-12, Sec 87-94), the method further comprising:

receiving the stream by the first contents transmitting device (*Komuro*: Fig 11; Page 8, Sec 63-65); and

selectively outputting, via the first digital interface of the first contents transmitting device, the compressed/expanded digital signal to the first contents receiving device responsive to the integrated revocation list received in the stream (*Komuro*: Fig 11; Page 8, Sec 63-65).

10. Claims 4 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over European Patent Application Publication No. EP0930556 by *Komuro et al.* in view of U.S. Patent No. 7,225,164 to *Candelore et al.* and in view of U.S. Patent Application Publication No. 2002/0004901 by *Yip et al.* further in view of U.S. Patent Application Publication No. 2004/0054892 by *Ji et al.*

As to **claims 4 and 12**, the modified *Komuro/Candelore/Yip* reference discloses all recited elements of claims 1 and 9 from which claims 4 and 12 depend. The modified reference further discloses wherein the stream is an MPEG transport stream

(*Candelore*: Col 6 , Line 42- Col 7, Line10; CRL transported in an MPEG PSI data structure),

The modified reference does not expressly disclose the integrated revocation list is transmitted by using a data structure of a PES packet of the MPEG transport stream.

Ji discloses the integrated revocation list is transmitted by using a data structure of a PES packet of the MPEG transport stream (*Ji:* Page 2, Sec 27, 35).

The modified reference and *Ji* are analogous art because they are from the common area of data transmission and protection.

At the time of invention, it would have been obvious to a person of ordinary skill in the art to transmit control information in a PES packet of the MPEG transport stream. The rationale would have been to link the control data to the playback information (Ji: Page 2, Sec 34).

11. Claims 6 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over European Patent Application Publication No. EP0930556 by *Komuro et al.* in view of U.S. Patent No. 7,225,164 to *Candelore et al.* and in view of U.S. Patent Application Publication No. 2002/0004901 by *Yip et al.* further in view of U.S. Patent No. 5,692,124 by *Holden et al.*

As to **claims 6 and 14**, the modified *Komuro/Candelore/Yip* reference discloses all recited elements of claims 1 and 9 from which claims 6 and 14 depend.

The modified reference does not expressly disclose wherein the integrated revocation list is transmitted by using an IP packet.

Holden discloses wherein the integrated revocation list is transmitted by using an IP packet (*Holden*: Col 18, Lines 30-38).

The modified reference and *Holden* are analogous art because they are from the common area of data transmission and protection.

At the time of invention, it would have been obvious to a person of ordinary skill in the art to transmit revocation data in an IP packet. The rationale would have been to allow for transfer over a TCP/IP network.

12. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over European Patent Application Publication No. EP0930556 by *Komuro et al.* in view of U.S. Patent No. 7,225,164 to *Candelore et al.* and in view of U.S. Patent Application Publication No. 2002/0004901 by *Yip et al.* further in view of U.S. Patent Application Publication No. 2004/0054892 by *Ji et al.* further in view of U.S. Patent No. 5,692,124 by *Holden et al.*

As to claim 20, the modified *Komuro/Candelore/Yip/Ji* reference discloses a revocation information transmission method used in a system including a plurality of contents transmitting devices for transmitting contents, and a plurality of contents receiving devices for receiving contents on a network (*Komura*: Fig 11, Page 8; Sec 71 and Page 11-12, Sec 87-94), the method comprising the steps of:

executing mutual authentication between the plurality of contents transmitting devices and the plurality of contents receiving devices, respectively, each of the contents transmitting devices reading authentication information of a respective one of

the contents receiving devices (Komura: Fig 11, Page 8; sec 71 and Page 11-12, Sec 87-94);

individually uploading revocation information including key information of mutual authentication failure from each of the contents transmitting devices or each of the contents receiving devices in case of mutual authentication failure to a revocation integrator (Komura: Fig 11, Page 8; sec 71 and Page 11-12, Sec 87-94 and Page 13, Sec 110) that is separate from the plurality of contents transmitting devices and the plurality of contents receiving devices (*Yip* – Fig 3; Page 4, Sec 48- 54; Combined Registration Authority acts as a revocation integrator separate from the transmitting and receiving devices);

integrating, with the revocation integrator, the revocation information from each of the contents transmitting device with the revocation information from each of the contents transmitting devices, as an integrated revocation list representing a common list of revocations for the contents receiving devices and the contents transmitting devices on the network (Komura: Fig 11, Page 8; sec 71 and Page 11-12, Sec 87-94 and Page 13, Sec 110; broadcasting reception apparatus acquires list of device ids of illegal apparatuses from the connected device_ID table of individual devices and distributes the list to other connected devices);

packetizing the integrated revocation list and multiplexing the packetized revocation list into a stream (*Candelore*: Col 6 , Line 42- Col 7, Line10; CRL transported in an MPEG PSI data structure); and

transmitting the stream to the contents transmitting devices on the network (*Komuro*: Fig 11; Page 11, Sec 88-90),

wherein the stream is an MPEG transport stream (*Candelore*: Col 6 , Line 42- Col 7, Line10; CRL transported in an MPEG PSI data structure), and the integrated revocation list is

1) transmitted by using a data structure of a section of the MPEG transport stream (*Candelore*: Col 6 , Line 42- Col 7, Line10; CRL transported in an MPEG PSI data structure),

2) transmitted by using a payload of transport packet of the MPEG transport stream (*Ji:* Page 2, Sec 27, 35).

The modified reference does not expressly disclose wherein the integrated revocation list is transmitted by using an IP packet.

Holden discloses wherein the integrated revocation list is transmitted by using an IP packet (*Holden*: Col 18, Lines 30-38).

The modified reference and *Holden* are analogous art because they are from the common area of data transmission and protection.

At the time of invention, it would have been obvious to a person of ordinary skill in the art to transmit revocation data in an IP packet. The rationale would have been to allow for transfer over a TCP/IP network.

REMARKS

13. Applicant has presented amendments in the claims. In response to Applicant's amendments, Examiner has raised new grounds of rejection. Consequently, Applicant's arguments are moot in light of the new grounds of rejection.

Conclusion

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael S. McNally whose telephone number is (571)270-1599. The examiner can normally be reached on Monday through Friday 9:00 - 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nasser Moazzami can be reached on (571)272-4195. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M. S. M./
Examiner, Art Unit 2436
19 October 2010

/Nasser Moazzami/

Supervisory Patent Examiner, Art Unit 2436